For each of the following reactions, state whether a precipitate occurs. If it does, write the correct net ionic equation for the production of the precipitate.

1. Sodium hydroxide + hydrochloric acid
2. Barium chloride + sodium hydroxide
3. Sodium chloride + copper nitrate
4. Silver nitrate + sodium hydroxide
5. Ammonia + sodium chloride
6. Iron III nitrate + ammonia
7. Magnesium sulfate + barium chloride
8. Zinc chloride + sodium carbonate
9. Aluminium chloride + silver nitrate
10. Copper nitrate + ammonia
11. Sulfuric acid + barium chloride

The following reactions involve a precipitate redissolving. Write an equation and explain:

1. Sulfuric acid is added to the precipitate formed between ammonia and aluminium chloride
2. Excess sodium hydroxide is added after a precipitate is formed in aluminium chloride and sodium hydroxide.
3. Excess ammonia is added to the precipitate formed between ammonia and copper chloride.